CTIA
Building The Wireless Future™
Cellular Telecommunications & Internet Association

January 14, 2003

Ms. Marlene Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
12th Street Lobby, TW-A325
Washington, DC 20554

***Re*: *Ex Parte* Presentation**
IB Docket No. 01-185; ET Docket No. 95-18; ET Docket No. 00-258

Dear Ms. Dortch:

On January 13, 2003, the attached list of CMRS Industry Representatives met with the attached list of FCC Represenatives to discuss interference issues related to the pending Mobile Satellite Service/Ancillary Terrestrial Component proceedings. Specifically, the parties discussed the attached presentation.

Pursuant to Section 1.1206 of the Commission's Rules, an original and one copy of this letter is being filed with your office. If you have any questions concerning this submission, please contact the undersigned.

Sincerely,

Diane Cornell

Diane Cornell

cc: Breck Blalock, Rick Engelman, Bruce Franca, David Furth, Lisa Gaisford, Howard Griboff, Kathleen Ham, Ira Keltz, Bill Lane, Marty Liebman, Paul Locke, Chris Murphy, Charles Rush, Blaise Scinto, Cathy Seidel, Tom Stanley, Tom Sugrue

FCC Representatives

International Bureau
Rick Engelman
Chris Murphy
Breck Blalock
Paul Locke
Howard Griboff

Wireless Telecommuncications Bureau
Tom Sugrue
Kathleen Ham
Cathy Seidel
Blaise Scinto
Tom Stanley
Bill Lane
David Furth
Charles Rush
Marty Liebman

Office of Engineering and Technology
Bruce Franca
Lisa Gaisford
Ira Keltz

Industry Representatives	Company
Diane Cornell	CTIA
Dan Swearingen	Consultant to CTIA
Don Brittingham	Verizon Wireless
Bill Stone	Verizon Wireless
Jim Bugel	Cingular
Andrew Clegg	Cingular
Cecily Cohen	Nokia
Neeti Tandon	AT&T Wireless
Gary Jones	T-Mobile
Luisa Lancetti	Sprint
Rob Kubik	Motorola
Steve Sharkey	Motorola

Interference Between ATC/MSS and PCS In the 1990-2025 MHz Band

IB Docket No. 01-185
ET Docket No. 95-18
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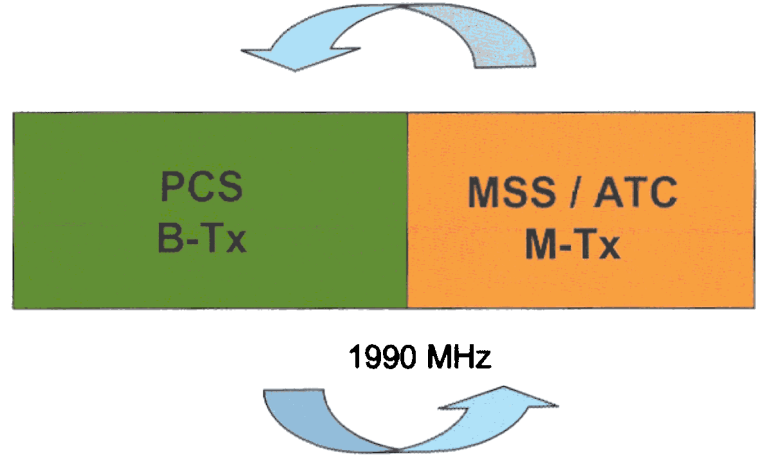
Industry Ex Parte Meeting

January 13, 2003

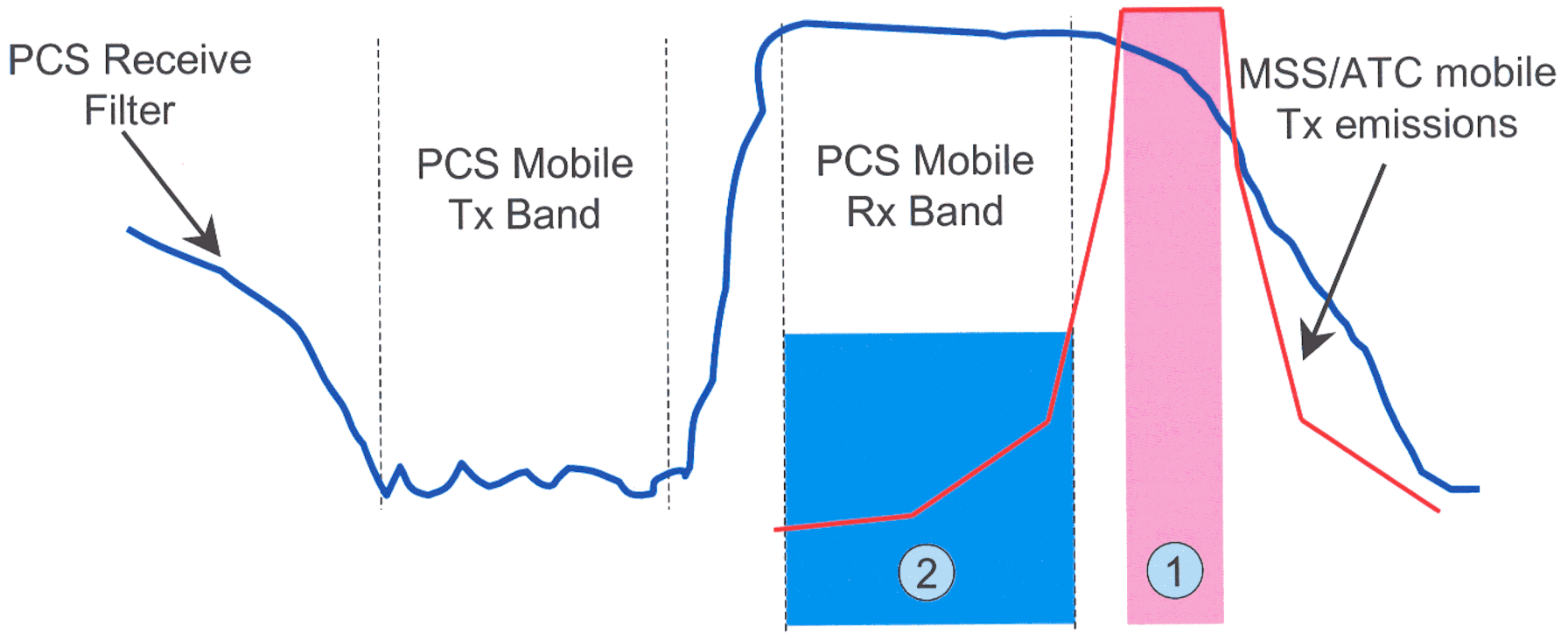
Interference Between MSS / ATC and PCS

- MSS / ATC operations at 1990 MHz will result in interference to/from PCS.



- ATC mobile transmitters will interfere into PCS mobile receivers.
  MSS mobile transmitters will interfere into PCS mobile receivers.
  PCS base station transmitters will interfere into ATC base station receivers.

MSS / ATC Interference Into PCS



1) Interference primarily due to PCS mobile receiver picking up MSS/ATC mobile transmitter main carrier.

2) Interference primarily due to PCS mobile receiver picking up MSS/ATC mobile transmitter out-of-band emissions.

Comparison of out-of-band emissions into PCS Mobile Rx Band

AT

Architecture & Systems Engineering

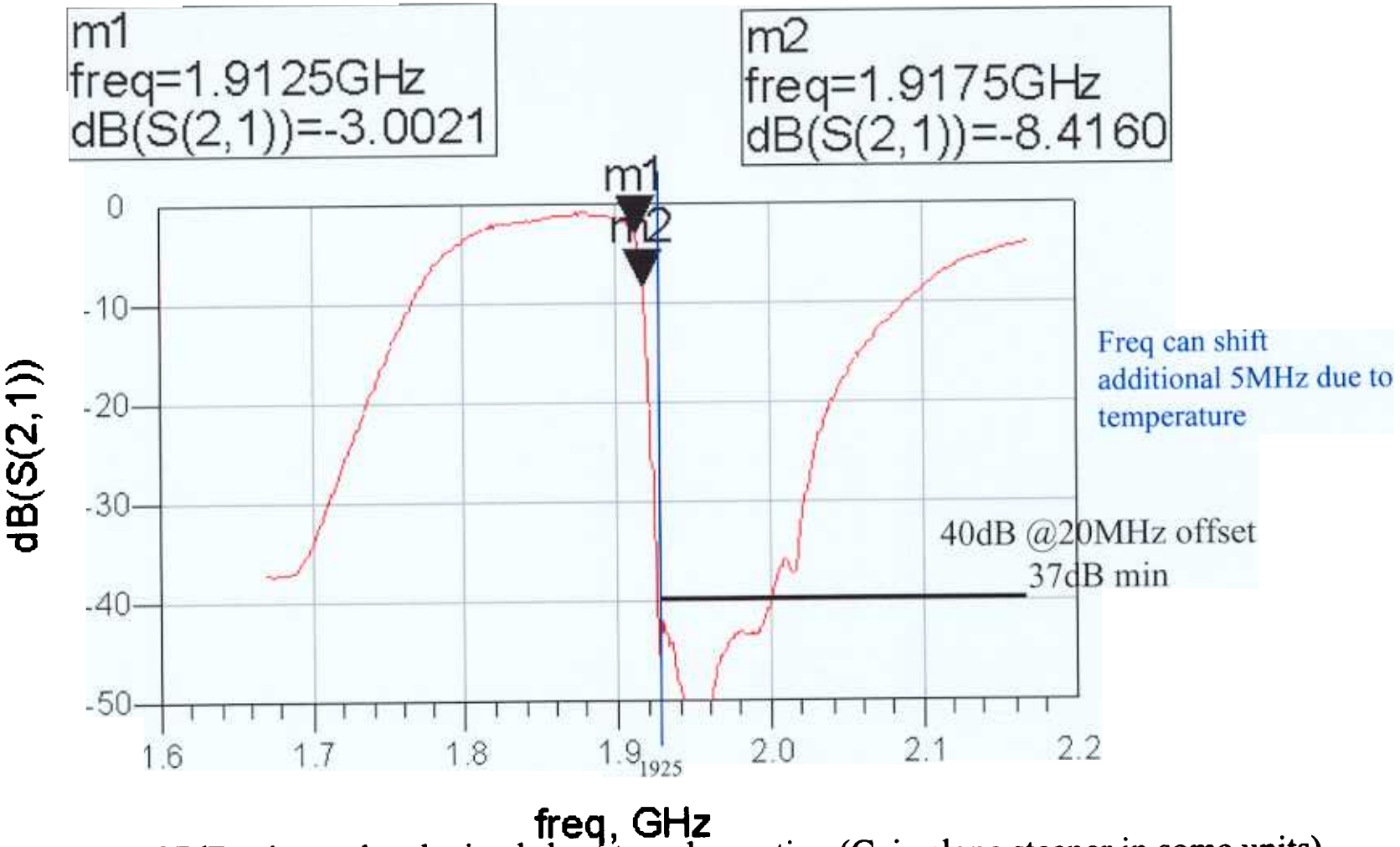
	FCC (ITU Cat A)	European (ITU Cat B)	TIA Rule	TIA Rule	Calculated Tx At ACP Limit	Specimen at PA Limit
Tx Configuration	General	General	CDMA2000	TDMA	CDMA2000	WCDMA
Frequency offset/Band	PCS Rx	PCS Rx	PCS Rx	PCS Rx	10 MHz	10 MHz
Rx noise floor dBm/1.25 MHz	-108	-108	-108	-108	-108	-108
Tx Filtering at offset (dB)	n/a	n/a	n/a	n/a	15	0
Power at offset (dBm/1.25 MHz)	-13	-30	-80	-63.8	-41.6	-33.1
Power transmitted into victim Rx (dBm)	-19	-36	-86	-69.8	-47.6	-39.1
Amount of desense w/o separation (dB)	88.9	71.9	21.9	38.1	60.3	68.8
Meter separation required for 3 dB degradation	333	50.5	0.16	1.0	13.3	35.4

FCC Rules result in 300+ meter separation requirement.

TIA levels provide acceptable protection for PCS band.

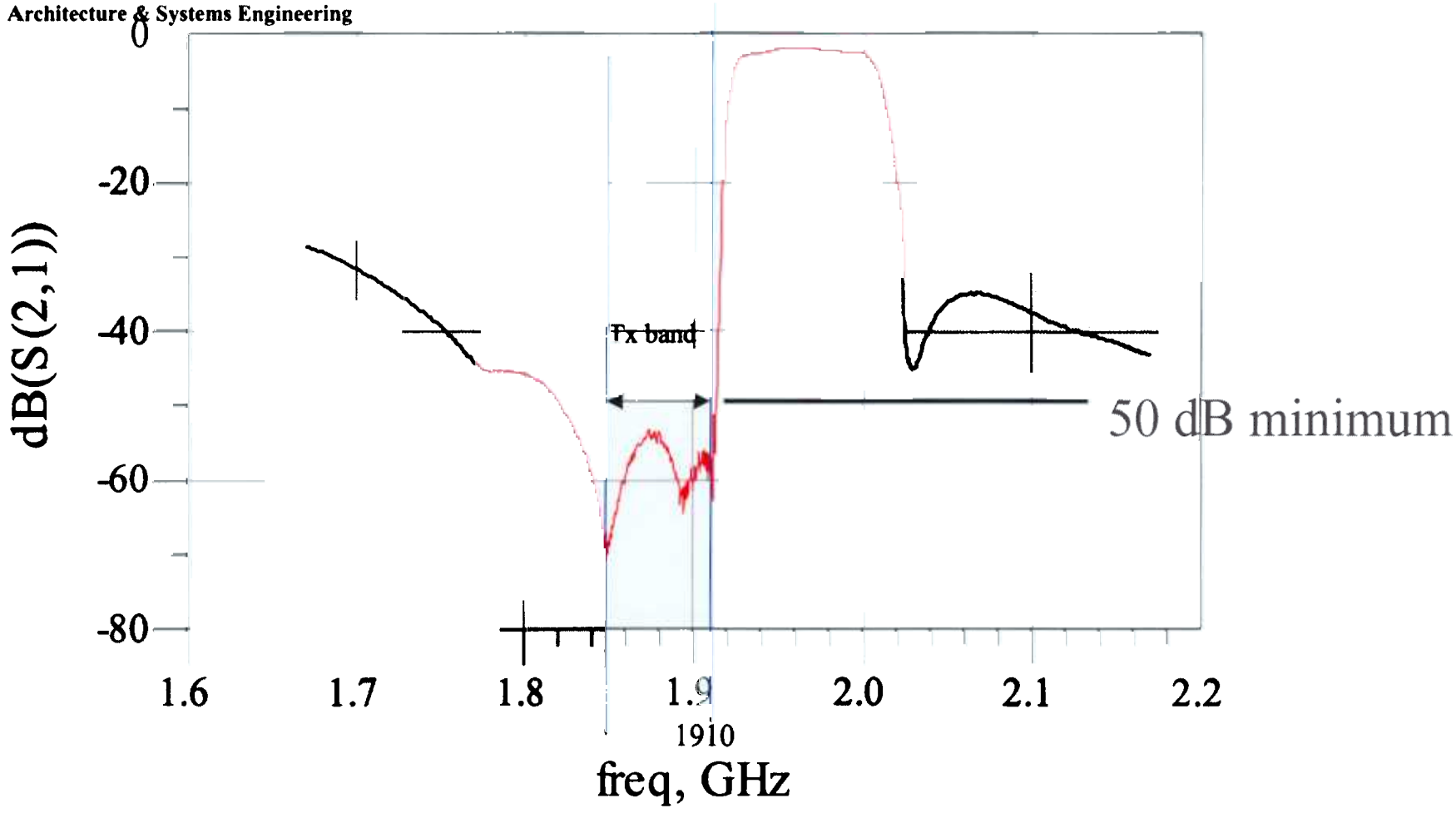
Measured devices at 10 MHz offset fall short of out-of-band emissions specifications.

AGILENT PCS FBAR Tx commercial filter applied to G band



- Agilent claims 37dB min can be obtained short term by sorting (Gain slope steeper in some units) and possibly longer term can be supported with design change and new TC in 2 years
- High Risk in new single sourced sorted filter or new design with no quote in hand.
- Split band filters can solve duplex noise problem but not Rx noise from G band Tx's

AGILENT PCS Rx filter commercial filter applied to G band



- Rx filter also needs tweak/sort with associated risk
- Split band filters viable
  - but expensive option in $ and size
  - performance degradation due to extra losses

PCS Interference Into ATC

- PCS base stations will interfere into ATC base stations
- ITU Report on "Compatibility between WCDMA 1800 Downlink and GSM 1900 uplink"; Working Party 8F, Document 8/66-E.
  - Report concludes that guard band is required to prevent base-to-base interference.

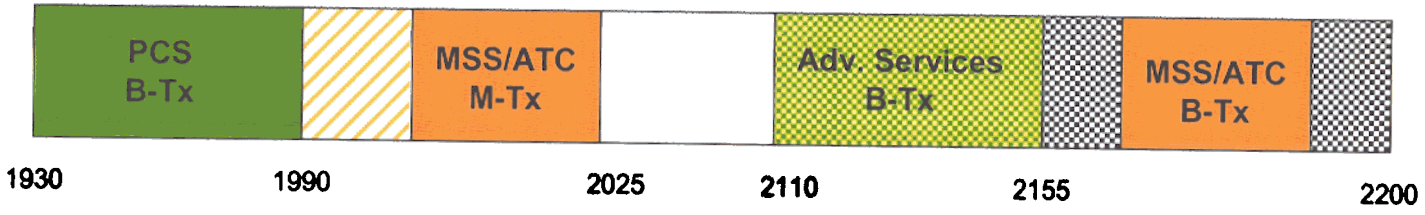
    Deterministic calculations show that as much as 15 MHz may be required.

    Coordination, physical separation of base stations, and other system trade-offs may reduce the required guard band.

    5 MHz guard band may be possible, but not without trade-offs that might be unacceptable to MSS/ATC.

Possible Solution to MSS/ATC/PCS Interference

Move MSS Up in Band



- Provide sufficient guard band between PCS and MSS/ATC at 1990 MHz.
- Guard band not required above 2155 MHz, since both bands are mobile Rx.
- Even with an adequate guard band, ATC/MSS mobiles will need to adhere to stricter emissions limits than those currently in the FCC's rules.